IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| **In re Application of:**<br>**Ravikumar, Vasulinga et al.** | **Confirmation No.: 4970** |
| **Application No.: 10/510,667** | **Group Art Unit: 1635** |
| **Filing Date: 04/05/2005** | **Examiner: Tracy Ann Vivlemore** |
| **For: OLIGOMERIC COMPOUNDS HAVING MODIFIED PHOSPHATE GROUPS** | |

## REQUEST FOR CONTINUED EXAMINATION

Dear Sir:

This Request for Continued Examination (RCE) is being filed with a submission under 37 C.F.R. 1.114 as follows:

☐ **Amendments to the Specification** begin on page of this paper.

☒ **Amendments to the Claims** are reflected in the listing of the claims which begins on page 2 of this paper.

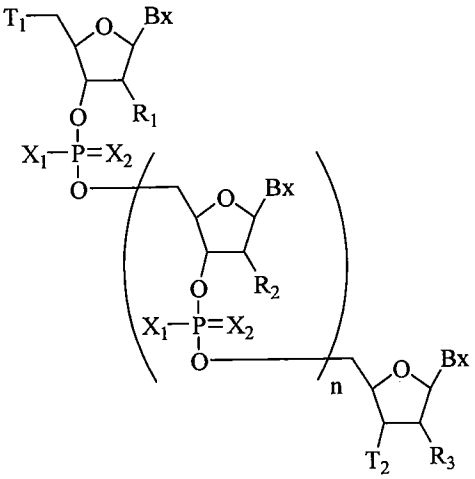
☐ **Amendments to the Drawings** begin on page of this paper and include an attached replacement sheet.

☒ **Remarks/Arguments** begin on page 5 of this paper.

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (currently amended) An oligomeric compound having the formula:

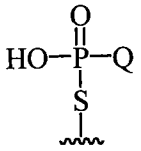


wherein:

each Bx is, independently, a heterocyclic base moiety;

$T_2$ is hydroxyl or a protected hydroxyl;

$T_1$ is a modified phosphate having the formula:



wherein:

Q is OH or $CH_3$

$R_1$, $R_3$ and each $R_2$ are, independently, hydrogen, hydroxyl, a sugar substituent group or a protected sugar substituent group;

each $X_1$ and $X_2$ is, independently, O or S wherein at least one $X_1$ is S; ~~and~~

n is from [[3]] about 13 to [[48]] about 23; and

wherein said oligomeric compound is complementary to a target nucleic acid.

2-3. (canceled)

4. (previously presented) The oligomeric compound of claim 1 wherein Q is $CH_3$.

5-10. (canceled)

11. (original) The oligomeric compound of claim 1 wherein $R_1$, $R_3$ and each $R_2$ is hydrogen.

12. (original) The oligomeric compound of claim 1 wherein $R_1$, $R_3$ and each $R_2$ is hydroxyl.

13. (previously presented) The oligomeric compound of claim 1 wherein $R_1$, $R_3$ and each $R_2$ are, independently, hydrogen, hydroxyl, a sugar substituent group or a protected sugar substituent group.

14. (original) The oligomeric compound of claim 1 wherein at least one of $R_1$, $R_2$ or $R_3$ is an optionally protected sugar substituent group.

15. (original) The oligomeric compound of claim 1 wherein each $X_2$ is S.

16. (original) The oligomeric compound of claim 1 wherein each heterocyclic base moiety is, independently, adenine, cytosine, 5-methylcytosine, thymine, uracil, guanine or 2-aminoadenine.

17. (original) The oligomeric compound of claim 1 wherein n is from about 8 to about 30.

18. (original) The oligomeric compound of claim 1 wherein n is from about 15 to 25.

19. (withdrawn) A method of treating an organism having a disease characterized by the undesired production of a protein comprising contacting the organism with an oligomeric compound of claim 1.

20. (previously presented) A composition comprising:

a pharmaceutically effective amount of an oligomeric compound of claim 1; and

a pharmaceutically acceptable diluent or carrier.

21. (withdrawn) A method of modifying *in vitro* a nucleic acid, comprising contacting a test solution containing RNase H and said nucleic acid with an oligomeric compound of claim 1.

22. (withdrawn) A method of concurrently enhancing hybridization and RNase H activation in a organism comprising contacting the organism with an oligomeric compound of claim 1.

23. (withdrawn) A method comprising contacting a cell with an oligomeric compound of claim 1.

24-41. (canceled)

## REMARKS

This responds to the Examiner's answer mailed on October 15, 2009.

Claim 1 is amended and claims 1, 4, 11 to 18 and 20 are pending.

Claim 1 has been amended to recite that n is from about 13 to about 23 and wherein said oligomeric compound is complementary to a target nucleic acid. The amendments finds support throughout the specification (see published PCT WO03/087115 A2) as file particularly at page 2, paragraphs 4 and 5; page 3, paragraph 9; page 4, paragraph 13; 23, paragraph 59; and page 30, paragraph 78.

## FEES

Please charge any additional fees, including any fees for extension of time, or credit overpayment to Deposit Account Number 50-0252.

Respectfully submitted,

Date: Robert S. Andrews 12-3-09

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# Request for Continued Examination (RCE) Transmittal

Address to:
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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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|---|---|
| Application Number | 10/510,667 |
| Filing Date | 4/5/2005 |
| First Named Inventor | Ravikumar, Vasulinga |
| Art Unit | 1635 |
| Examiner Name | Tracy Ann Vivlemore |
| Attorney Docket Number | ISIS-5582 |

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

   a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

      i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

      ii. ☐ Other _____

   b. ☑ Enclosed

      i. ☑ Amendment/Reply

      ii. ☐ Affidavit(s)/ Declaration(s)

      iii. ☐ Information Disclosure Statement (IDS)

      iv. ☐ Other _____

2. Miscellaneous

   a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

   b. ☐ Other _____

3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

   a. ☑ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 500252.

      i. ☑ RCE fee required under 37 CFR 1.17(e)

      ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)

      iii. ☐ Other _____

   b. ☐ Check in the amount of $ _____ enclosed

   c. ☐ Payment by credit card (Form PTO-2038 enclosed)

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

***SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED***

| | | | |
|---|---|---|---|
| Signature | Robert S. Andrews | Date | 12-3-09 |
| Name (Print/Type) | Robert S. Andrews | Registration No. | 44,508 |

***CERTIFICATE OF MAILING OR TRANSMISSION***

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

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| Signature | | | |
| Name (Print/Type) | | Date | |

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SE ND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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